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Egg Industries Answer Defense Needs

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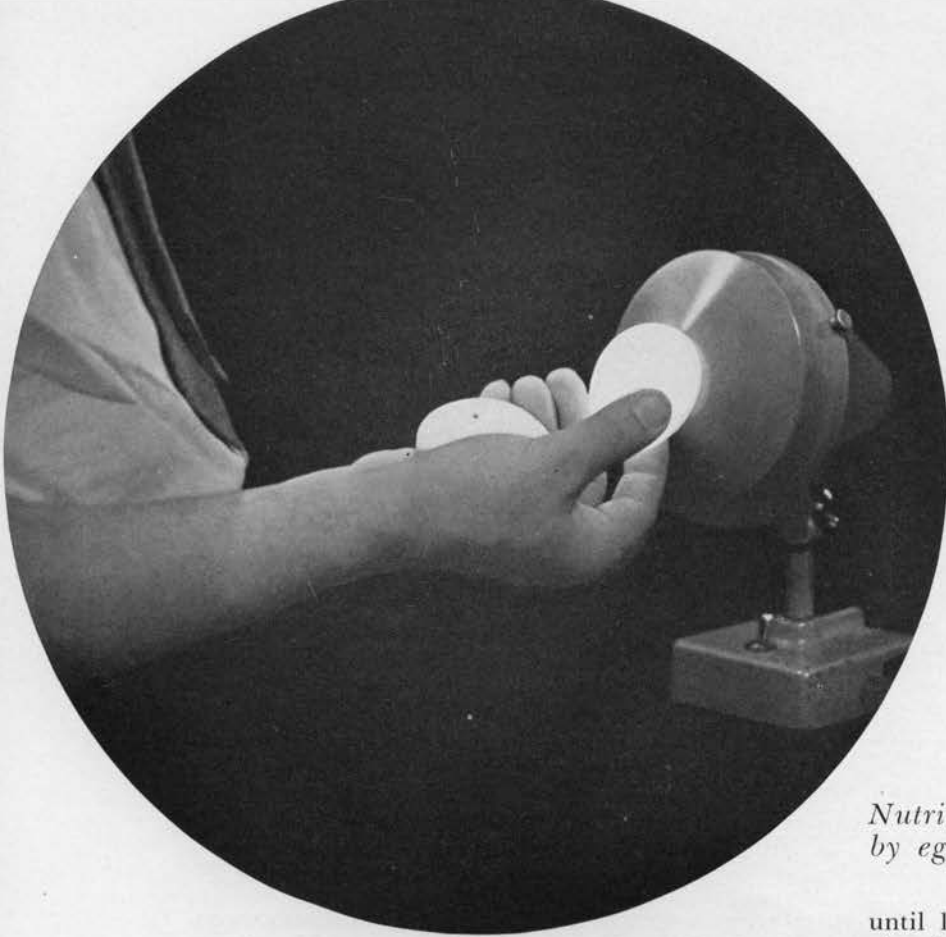
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Before the drying processes are begun, experts candle each egg to discover any possible defect hindering preservation

Egg Industries

Answer

Defense Needs

Nutrition problems in defense are simplified by egg-drying, relates Dorothy Lee Conquest

SPRINGING from obscurity to recognition as a major item on the nation's defense program, the dried egg industry has indeed had a phenomenal career in the United States. It is considered an important item in the solution of the food problem both in feeding our own people and in aiding those of war-torn areas.

Ease in handling and storing scores the most points in favor of dried eggs. Packed in barrels for lend-lease shipments and army camp allotments, they may be kept indefinitely in storage without affecting the "fresh egg" flavor or food value.

The nutritional value of eggs is unchanged in the drying process. The only part removed is the water, while the protein, fat and mineral contents remain the same. Vitamins are unaffected in freshly dried eggs, although vitamin content is lost in proportion to the air stability of that particular vitamin.

Eggs are dried in three different forms: whole eggs, separate yolks and whites. The yolks and whole eggs receive no special treatment before the drying process is begun, while the separate whites are treated with weak acids to reduce the viscosity.

The drying process is the same for all forms. After a preliminary drying in pans, the eggs are passed through a hot-air chamber on screens which allow the air to reach them from all sides. The air in the chamber is carefully regulated, for it must not reach a temperature above the coagulation point of albumen and yet must be high enough to insure completely dried eggs at the end of the process.

Some eggs are completely dried in pans, a process known as pan-drying. The spray-drying method usually is preferred, however, for it is cleaner and faster.

Cheap imports of dried eggs from China were instrumental in keeping the United States supplied

until 1932, when an import tax of 27 cents a pound placed on Chinese eggs began to show its effects. Added to this financial consideration was more rigid investigation of the sanitary properties of imported dried eggs.

The Oriental method was to spread the shelled eggs in the open air and allow them to ferment and dry in the sun. Then formaldehyde was added to cover up the odor of the eggs. Bacterial counts on eggs dried by this method were so high that many shipments of the eggs were confiscated under the Pure Food and Drug Act.

The war also aided in reducing foreign imports of dried eggs. The large Chinese peace-time industry was practically wiped out by war with the Japanese and what eggs were processed could not be delivered.

While small egg-drying plants were gradually springing up in various parts of our country, a national emergency was approaching. The lend-lease bill, with its demands on all American industry, was signed. Regarding the food situation, the British knew what they wanted: large amounts of easily stored, easily shipped, lightweight foods to augment the small supplies of fresh foods still obtainable at home.

Plans for huge army camps, mushrooming overnight as more and more men were called into selective service, demanded a quick solution to the food problem. Army dietitians and camp cooks needed a substitute for fresh eggs, for they were difficult to obtain in certain sections of the country and even more difficult to store.

A few egg-driers who had been supplying bakers and confectioners with dried eggs in bulk for some time, had just begun to package the powder in smaller amounts for retail sales. Household promotions were planned and even set into operation until the government bought out the productive efforts of all but two of these plants and started building more.

The United States Department of Agriculture is aiding these companies in establishing and operating egg-drying plants which later will become the property of the government.